

IN THE CLAIMS

Please amend the claims as follows:

Claims 1-20 (Canceled).

Claim 21 (Previously Presented): A connectable four-wheel drive vehicle comprising:

an engine having a drive shaft;

two main drive wheels connected permanently to the drive shaft by interposition of a gearbox having a first clutch; and

two secondary drive wheels selectively connectable to the drive shaft by a connectable drive system;

wherein the connectable drive system comprises a second clutch which, on one side, is connected mechanically to the drive shaft upstream from the gearbox, and, on another side, is connected mechanically to the secondary drive wheels.

Claim 22 (Currently Amended): A vehicle as claimed in claim [31] 21, wherein the second clutch, on one side, is connected with a fixed velocity ratio to the drive shaft upstream from the gearbox, and, on another side, is connected with a fixed velocity ratio to the secondary drive wheels.

Claim 23 (Previously Presented): A vehicle as claimed in claim 21, wherein the gearbox comprises plural gears; and

the connectable drive system includes a gear train having a velocity ratio that, when a given synchronous gear of the gearbox is engaged, the input and output of the second clutch have the same speed.

Claim 24 (Currently Amended): A vehicle as claimed in claim 23, wherein the given synchronous gear is the third gear of the gearbox.

Claim 25 (Withdrawn): A vehicle as claimed in claim 23, wherein the gear train is located downstream from the second clutch.

Claim 26 (Currently Amended): ~~A vehicle as claimed in claim 23~~ A connectable four-wheel drive vehicle comprising:
an engine having a drive shaft;
two main drive wheels connected permanently to the drive shaft by interposition of a gearbox having plural gears and a first clutch; and
two secondary drive wheels selectively connectable to the drive shaft by a connectable drive system;
wherein the connectable drive system comprises a second clutch which, on one side, is connected mechanically to the drive shaft upstream from the gearbox, and, on another side, is connected mechanically to the secondary drive wheels,
the connectable drive system includes a gear train having a velocity ratio that, when a given synchronous gear of the gearbox is engaged, the input and output of the second clutch have the same speed,
wherein the gear train is located upstream from the second clutch.

Claim 27 (Previously Presented): A vehicle as claimed in claim 21, wherein the second clutch is controllable to transmit a torque ranging from zero to a maximum value.

Claim 28 (Previously Presented): A vehicle as claimed in claim 27, wherein the second clutch is an oil-bath clutch.

Claim 29 (Previously Presented): A vehicle as claimed in claim 27, wherein the second clutch comprises an actuator for adjusting a position of the second clutch and therefore a value of the torque transmitted by the second clutch.

Claim 30 (Currently Amended): ~~A vehicle as claimed in claim 27~~ A connectable four-wheel drive vehicle comprising:
an engine having a drive shaft;
two main drive wheels connected permanently to the drive shaft by interposition of a gearbox having a first clutch; and
two secondary drive wheels selectively connectable to the drive shaft by a connectable drive system;
wherein the connectable drive system comprises a second clutch which, on one side, is connected mechanically to the drive shaft upstream from the gearbox, and, on another side, is connected mechanically to the secondary drive wheels, wherein the second clutch is controllable to transmit a torque ranging from zero to a maximum value, and
wherein the connectable drive system is controlled by a control unit comprising a first sensor detecting rotation speed of the secondary drive wheels; a second sensor detecting rotation speed of the main drive wheels; and a differential block generating an error signal proportional to the difference between the rotation speed of the secondary drive wheels and the rotation speed of the main drive wheels; the second clutch being controlled by the control unit as a function of an error signal.

Claim 31 (Previously Presented): A vehicle as claimed in claim 30, wherein the velocity ratio of the gear train is such that, when a given synchronous gear of the gearbox is engaged, input and output of the second clutch have a same angular speed; the control unit comprising a disabling block preventing activation of the second clutch when the engaged gear of the gearbox is higher than the synchronous gear.

Claim 32 (Previously Presented): A vehicle as claimed in claim 30, wherein the velocity ratio of the gear train is such that, when a gear of the gearbox higher than a given maximum gear of the gearbox is engaged, then the input of the second clutch has a lower angular speed than the output of the second clutch; the control unit comprising a disabling block for preventing activation of the second clutch when the engaged gear of the gearbox is higher than the maximum gear.

Claim 33 (Previously Presented): A vehicle as claimed in claim 21, wherein the main drive wheels are rear wheels, and the secondary drive wheels are front wheels.

Claim 34 (Currently Amended): A vehicle as claimed in claim 33, wherein the engine is at a front of the vehicle, and is connected to main rear drive wheels by a power train comprising the first clutch and a first propeller shaft terminating in the gearbox located at the rear of the vehicle; a first differential being cascade-connected to the gearbox, and from which extend two axle shafts, each integral with a respective rear drive wheel.

Claim 35 (Previously Presented): A vehicle as claimed in claim 31, wherein the first clutch is located at a front and housed in a casing integral with the engine.

Claim 36 (Withdrawn): A vehicle as claimed in claim 34, wherein the first clutch is located at a rear and housed in a casing integral with the gearbox.

Claim 37 (Withdrawn): A vehicle as claimed in claim 33, wherein the engine is located centrally, the first clutch and the gearbox being located rearward.

Claim 38 (Withdrawn): A vehicle as claimed in claim 37, wherein the drive shaft is connected on one side to the first clutch to transmit power to the main drive wheels, and is connected on another side to the second clutch to transmit power to the secondary drive wheels.

Claim 39 (Previously Presented): A vehicle as claimed in claim 21, wherein the connectable drive system comprises a second differential driven by the second clutch and connected to two axle shafts integral with the secondary drive wheels.

Claim 40 (Cancelled).

Claim 41 (New): A connectable four-wheel drive vehicle comprising:

an engine having a drive shaft;

two main drive wheels connected permanently to the drive shaft by interposition of a gearbox having at least one gear and a first clutch; and

two secondary drive wheels selectively connectable to the drive shaft by a connectable drive system;

wherein the connectable drive system comprises a second clutch which, on one side, is connected to the drive shaft upstream from the gearbox in the direction of torque

transmission from the engine to the gearbox, and not through any gear of the gearbox and, on another side, is connected mechanically to the secondary drive wheels.

Claim 42 (New): A vehicle as claimed in claim 41, wherein the main drive wheels are rear wheels, and the secondary drive wheels are front wheels, wherein the engine is at a front of the vehicle and is connected to main rear drive wheels by a power train comprising the first clutch and a first propeller shaft terminating in the gearbox located at the rear of the vehicle, a first differential being cascade-connected to the gearbox, and from which extend two axle shafts, each integral with a respective rear drive wheel.